Innovation and Regions: Theory, Practice and Policy

Rydges on Swanston Melbourne
7-10 December 2010

CONFERENCE PROGRAMME
Welcome

Paul Dalziel (ANZRSAI President) and Paul Collits (Conference Convenor) are very pleased to welcome delegates to the 34th Annual Conference of the Australia New Zealand Regional Science Association International.

We offer a particularly warm welcome to those who have travelled some distance to be here in Melbourne. Some of you have been to several of our conferences in the past; for others this is the first time you have participated in one of our meetings. You are all very welcome.

The theme of the conference is *Innovation and Regions: Theory, Practice and Policy*. As each of our keynote speakers will describe in their presentations, it is a very challenging time for people engaged in regional science, whether for theory, practice or policy. This sense of challenge is carried over into what we think is an exciting programme of contributed papers covering a wide range of issues relevant to our discipline.

As always, we are grateful to the many people who helped make this conference possible, including Hazel and Greg Jones (our two Administrators for ANZRSAI) and staff working for the Rydges on Swanston Hotel.

We look forward to the next three days in which regional scientists from near and far will come together to advance knowledge, scholarship and friendships. We wish you all well for a conference that we are sure will be both enjoyable and inspiring.

**Paul Dalziel and Paul Collits**

**Australia New Zealand Regional Science Association International (ANZRSAI)**

ANZRSAI is a member of the Regional Science Association International (RSAI). The RSAI was founded in 1954 when Walter Isard brought together an interdisciplinary group interested in analysing questions with a spatial dimension. Today the RSAI consists of over 3,000 academics and other professionals in business and government from around the world. RSAI members come from a wide range of disciplines including economics, geography, urban planning, political science and sociology.

ANZRSAI was established in 1971 and organised its first international conference in Brisbane in 1976. The Association has also hosted four Pacific Regional Science Conferences, with the most recent being in Surfers Paradise in 2009. ANZRSAI is governed by an elected Council made up of State, Territory and New Zealand representatives, the editor of its academic journal *AJRS*, and five elected executive officers. The Council is assisted by two administrators, Hazel Jones and Greg Jones.
Tuesday 7 December

5.00pm  Registration Desk Opens

6.00pm  Cocktail Reception  
Location: Pool Deck  
Paul Dalziel (President, ANZRSAI)  
Paul Collits (Conference Convenor)  
Welcome to the Conference

7:00pm  Conclusion of Welcome Reception; Registration Desk Closes

Wednesday 8 December

8.00am  Registration Desk Opens

9.00am  Welcome  
Location: Swanston Room  
Paul Dalziel, Paul Collits  
Opening of the Conference

9.30am  Keynote Address I  
Location: Swanston Room  
Chair: Paul Collits  
Professor Brian Dabson (University of Missouri, Columbia)  
Rural Regional Innovation

10.30am  MORNING TEA

11.00am  Parallel Sessions 1

12.30pm  LUNCH

1.30pm  Parallel Sessions 2

3.00pm  AFTERNOON TEA

3.30pm  Keynote Address II  
Location: Swanston Room  
Chair: Tony Sorensen  
Professor Bob Stimson (University of Queensland, Brisbane)  
Australia’s Changing Economic Geography Revisited

4.30pm  Registration Desk Closes
Thursday 9 December

8.00am  Registration Desk Opens

9.00am  Panel Session: Developments in ABS Regional Statistics
         Location: Swanston Room
         Chair: Andrea Woods
         Presenters: Lisa Conolly, Alec Bamber and Jenny Telford

10.30am MORNING TEA

11.00am Parallel Sessions 3

12.30pm LUNCH

1.30pm Parallel Sessions 4

3.00pm AFTERNOON TEA

3.30pm Keynote Address III Location: Swanston Room
      Chair: Paul Dalziel
      Dr Daniel Rutledge (Manaaki Whenua Landcare Research, Hamilton, NZ)
      The ‘Creating Futures’ Regional Science Project

4.30pm ANZRSAl AGM Location: TBC

4.30pm Registration Desk Closes

6.00pm Conference Awards Dinner Location: Swanston Room

Friday 10 December

8.00am  Registration Desk Opens

9.00am  Parallel Sessions 5

10.30am MORNING TEA

11.00am Parallel Sessions 6

12.30pm LUNCH and Closing
Two ABS Events

Census 2011

Part-time and casual job opportunities – count your community in the 2011 Census.

The Census of Population and Housing will take place on 9 August 2011 and everyone needs to be counted. To make this happen the Australian Bureau of Statistics (ABS) will be recruiting around 43,000 people from right across Australia to help count the nation.

The ABS are looking for community minded people to fill Area Supervisor and Census Collector roles, with work to start in early/mid 2011. Ideal applicants will be great communicators, well organised and have good administration skills.

These are jobs based in every state and territory, with part-time and casual positions available.

Census job opportunities will be advertised in local media and on the ABS website. Recruitment for Area Supervisors will commence in mid February 2011 with Census Collector recruitment to follow in early April 2011.

If you or someone you know would like to make your community count in the 2011 Census then you can register your interest now at www.abs.gov.au/census.

CENSUS

Census | beyond the count
Melbourne - Wednesday 2 to Friday 4 March 2011

The Census | beyond the count conference will highlight the effective and innovative use of Census data by government, community and private sector organisations. The conference will explore the significant contributions that the Census makes to community planning, infrastructure development, business opportunities and government policies.

Census | beyond the count will feature speakers and presenters from all levels of government, the private sector and not-for-profit organisations. The conference program promises to deliver an interesting and informative mix of plenary and concurrent sessions, interactive workshops, exhibitions and opportunities for delegates to meet and question Census staff.

For more information or to register for this exciting event go to www.abs.gov.au/beyondthecount
The Keynote Speakers

Professor Brian Dabson  *Rural Regional Innovation*

Brian Dabson is Vice President of the Rural Policy Research Institute (RUPRI), Director of the RUPRI Rural Futures Lab, and Research Professor at the Harry S. Truman School of Public Affairs, University of Missouri, Columbia. He is Board Chair of the RUPRI Center for Rural Entrepreneurship and a member of the Community Affairs Advisory Council at the Federal Reserve Bank of St. Louis. He has over 30 years of experience in public, private, and non-profit sectors and is recognized nationally and internationally for his work on entrepreneurship development, particularly in a rural context.

Professor Bob Stimson  *Australia’s Changing Economic Geography Revisited*

Professor Bob Stimson is Professor of Geographical Sciences and Planning at the University of Queensland and Program Director in the UQ Institute of Social Science Research (ISSR). He is an analytical human geographer and regional scientist, specialising in urban and regional analysis, development and planning and research into human spatial behaviour. Bob was elected a Fellow of the Academy of the Social Sciences in Australia in 2007 and was elected a Fellow of the Regional Science Association International in 2010, the first Australian to be honoured with this prestigious award.

Dr Daniel Rutledge  *The ‘Creating Futures’ Regional Science Project*

Daniel Rutledge is a senior scientist with the Sustainability and Society Team in Manaaki Whenua Landcare Research in Hamilton, New Zealand. His research uses the principles and theories of landscape ecology and complex systems analysis to better understand coupled human-natural systems, develop multi-scale models to explore future scenarios of development, and integrate new knowledge and methods into policy and decision-making, especially related to spatial planning and land-use/cover change. Daniel is Science Leader for the four-year FRST-funded research project, *Creating Futures*, in New Zealand.
Parallel Sessions 1
Wednesday 8 December, 11.00am–12.30pm

Session 1A  Regional Innovation I
Chair: Robyn Eversole  Location: Swanston Room

ARBUTHNOTT, A. and Y. von Fredrichs
Regional Entrepreneurship and Innovative Renewal Processes in a Peripheral Region

EVERSOLE, R.
Enabling Regional Innovation: The Knowledge Partnering Approach

SHARPE, S.
Sub-Metropolitan Innovation Systems: Interpreting Innovation within the Outer Metropolitan Region of Sydney

Session 1B  Environment Change and Regions
Chair: Elissa Waters  Location: Queensberry Room

FRASER, J.
Influence of Bioaccumulation in Catchment Based Assets of Regional Water Supplies in Victoria

WATERS, E.
Investigating Community Responses to Environmental Change: The Lake Boga Study

KABIR, S. M. Z. and S. Momtaz
Effective Environmental Impact Assessment (EIA) and Project Sustainability: A Case Study in Bangladesh

Session 1C  Peripheral Urban Regional Analysis
Chair: Carol Neill  Location: Pelham Room

NEILL, C.
The Role of the Hinterland in Auckland’s Economic Development

JAIN, A.
Knowledge Distribution Nodes and Home Based Businesses: Role of Business Associations and Local Council in Casey LGA

SIJABAT, R.
Testing the Leviathan Hypothesis: Evidence from the Provincial Government Level in Indonesia
Parallel Sessions 2
Wednesday 8 December, 1:30pm–3:00pm

Session 2A  Regional Governance Institutions
Chair: Chris McDonald          Location: Swanston Room

HOWELL, K.
Culture in an Evolving Regional Institution: Analysing Agency, Leadership and Path-Dependency

MCDONALD, C., A. Kirk-Brown, L. Frost and A. Rainnie
Partnerships and the economic development of regions: the case of North-West and Western Tasmania

MCGOVERN, M.
Effectively Funding Regional Infrastructure: The External Environment

Session 2B  Regional Inequalities and Policy
Chair: Kingsley Haynes          Location: Queensberry Room

HAYNES, K. and H. Li
Regional Inequality and Convergence in China: A Nonparametric Approach with Distribution Dynamics

SIJABAT, R.
Regional Inequalities of Educational Development in Indonesia: An investigation on the Impact of Decentralization

PADILLA, F.
Towards the Institutionalization of Social Protection for the Workers in the Informal Sector

Session 2C  Housing, Migrants and the Transactions Sector
Chair: Tony O’Malley          Location: Pelham Room

MCLAUGHLIN, R.
Metropolitan Growth Policies and New Housing Supply: Evidence from Australia’s Capital Cities

WELLER, S. and J. Blencowe
Where in Melbourne do the Newest Settlers Settle?

O’MALLEY, A.
The Transactions Sector and Regional Productivity
Plenary Session
Thursday 9 December, 9.00am–10.30am

Session ABS  Developments in ABS Regional Statistics
Chair: Andrea Woods  Location: Swanston Room

CONOLLY, L.
Socio-Economic Characteristics of Regions – Developments in Access to Regional Data

BAMBER, A.
Changes to ABS Geography: The New Australian Statistical Geography Standard

TELFORD, J.
Census 2011 Regional Engagement and Output Plans
Parallel Sessions 3
Thursday 9 December, 11.00am-12.30pm

Session 3A  Regional Innovation II
Chair: Jacques Poot Location: Swanston Room

POOT, J., P. Nijkamp and C. Ozgen  
*The Impact of Immigration on Innovation: Evidence from European Regions*

CAMPBELL-ELLIS, M. and T. McCall  
*Sustainable Development Platform Methods for Constructing Innovation and Managing Common Pool Resources*

SHARPE, S.  
*Commercialising Science: The Long Path from Lab to Market*

Session 3B  Regional Labour Markets I
Chair: Bill Mitchell Location: Queensberry Room

MITCHELL, W. and R. Stimson  
*Using Functional Economic Regions to Improve the Analysis of Labour Market Performance in Australia*

WELLER, S., B. Jackling, P. De Lange, G. Wines and J. Faulconbridge  
*Globalising the Labour Market for Accountants: Reconciling Employer Demands with the Aspirations of Migrant Professionals*

WINES, G., R. Carr, B. Cooper, C. Ferguson, P. Hellier and B. Jackling  
*Public Accounting Firm Services in Rural and Regional Australia: Practitioner Views*

Session 3C  Spatial Data Analysis
Chair: Shelby Canterford Location: Pelham Room

VIDYATTAMA, Y., R. Cassells, A. Harding and J. McNamara  
*Rich or Poor in Retirement? A Small Area Analysis of Australian Private Superannuation Savings in 2006 Using Spatial Microsimulation*

CANTERFORD, S.  
*Estimating People Spatially: 2006, the Present Day, 2100 and 2:36pm on Friday*

Stimson, R., I. SYED, F. Ungkarapambudi, T.-K. Shyy and W. Mitchell  
*Open Source E-Research Facility for Socio-Spatial Data Analysis*
Parallel Sessions 4  
Thursday 9 December, 1.30pm-3.00pm

Session 4A  Logistics and Quantum Mechanics  
Chair: Tony Sorensen  
Location: Swanston Room

O’CONNOR, K.  
"Logistics Activity and Metropolitan and Non-Metropolitan Development: A Melbourne Case Study"

ITO, H.  
"Container Handling Concentration in Asian Port Systems: Decomposition Analysis of the Gini Coefficient"

SORENSEN, A.  
"Quantum Dreaming: The Relevance of Quantum Mechanics to Regional Science"

Session 4B  Regional Labour Markets II  
Chair: Fiona McKenzie  
Location: Queensberry Room

MCKENZIE, F.  
"The Influence of Tertiary Institutions on Regional Youth Migration in Victoria"

O’Dwyer, M., J. Blencowe, K. Earp and S. WELLER  
"The Employment Pathways of Adult Migrant English Program (AMEP) students in Melbourne"

DALZIEL, P.  
"Education Employment Linkages: Perspectives from Employer-Led Channels"

Session 4C  Community Development in Poor Regions I  
Chair: Fiona Hazlam McKenzie  
Location: Pelham Room

HASLAM MCKENZIE, F. and A. Buckley  
"Lessons Learned from the Pilbara: The Socio-Economic Ills of Mono-Economies"

PADILLA, F.  
"Community Empowerment: A Case of the Coastal Resource Management Program in Dauin, Dumaguete City, Philippines"

GERRITSEN, R.  
"The Clash Between Contradictory Imperatives About Development"
Parallel Sessions 5
Friday 10 December, 9.00am-10.30am

Session 5A  Regions in Transition
Chair: Lindsay Greer  Location: Swanston Room

GREER, L.
Regions in Transition – Land Use Issues in the Surat Basin

HOATH, A.
Regions in Transition – Corporate Social Responsibility: A Mechanism for Viable Rural Futures?

SINGH, S. and P. Chhetri
Regional Structure of Indian Agriculture: An Analysis of Post-Liberalization Phase

Session 5B  Issues in Local Government
Chair: Paul Collits  Location: Queensberry Room

MCDONALD, C.
Managing the Spatial Economy through Strategic Planning: The Victorian Approach

COLLITS, P.
Where Will the People Live in a Big Australia? The Decentralisation Debate Revisited

MARTIN, J. and Q Farmar-Bowers
‘Dewatering’ Australia’s Foodbowl: Regional Development Policy at the Confluence of Structural Adjustment in Agriculture, a ‘Modernised’ Irrigation System and an Ageing Rural Society
Parallel Sessions 6  
Friday 10 December, 11.00am–12.30pm

Session 6A  Tools for Regional Development  
Chair: Paul Dalziel  
Location: Swanston Room

SAUNDERS, C., P. Rutherford and P. Dalziel  
Economic Development Model: Selecting Sectors for Optimal Outcomes

WATTS, M.  
An Application of Feng’s FST Methodology to the Design of Australia’s New Statistical Geography

MARDANEH, K.  
Clustering Australian Regional Areas: An Optimisation Approach

Session 6B  Community Development in Poor Regions II  
Chair: Rolf Gerritsen  
Location: Queensberry Room

WU, J.  
Regional Development in the Changing Distant Context: A Case Study of the Northern Territory, Australia

NOBLEZA, R.  
Indy Test Asia: An Initial Documentation of Philippine Studies and Appropriation of Independent Media Center Appropriation in Asia

GERRITSEN, R.  
An Infant Industry at the Geographic Periphery
Instructions to Chairs and Presenters in Parallel Sessions

Parallel Sessions are 90 minutes long and normally contain 3 papers. Each of the 3 papers should be allocated 30 minutes. Presenters should aim to confine their talk to 20 minutes allowing 10 minutes for discussion.

Chairs should ensure that each individual presenter is held to the 30 minute limit. At the end of the 30 minutes, regardless of whether there has been a reasonable time for questions, Chairs should thank the speaker and announce the next presenter or, at the end of all 3 presentations, the conclusion of the session. In most cases the Chair will also be a speaker in the session. While the Chair is speaking another presenter should keep time and at the end of 30 minutes announce the end of the presentation. Keeping to the 30-minute limit will be very much appreciated by the audience and the other presenters.

Please keep to the order of presentation in the program. If there is a no-show, please do not move to the next speaker. Don’t shift papers to avoid voids, as individuals may move between sessions in order to listen to a particular paper. The void can be used for a recess or for discussion, including the provision of additional information by the previous speaker.

As the changeover between some sessions is very tight, speakers should set up their presentation on the computer in the room allocated for their presentation during one of the breaks (morning tea, afternoon tea or lunch) prior to their session. It is advised that presenters test that all is working well with their PowerPoint slides well in advance of their session.
ARBUTHNOTT, Andrew
Session 1A
Umeå School of Business, Umeå University, Sweden
Email: andrew.arbuthnott@usbe.umu.se

Co-author: Dr Yvonne von Fredrichs (Umeå School of Business)

Title: Regional Entrepreneurship and Innovative Renewal Processes in a Peripheral Region

Abstract: This research paper provides insights into an innovative regional industry and renewal phenomenon in peripheral Sweden. The purpose of the paper is to illustrate processes of regional industry renewal, and outline key propositions for regional entrepreneurship. Peripheral regional business settings; regional entrepreneurship and local social capital encompass the theoretical and conceptual basis that it departs from. Accordingly, these areas are outlined as important when understanding regional renewal. Empirical findings from a longitudinal investigation, that followed the development and renewal of an innovative regional automotive-test industry, are presented. Key findings from the study illustrate a dynamic regional entrepreneurship case where infrastructure; internationalisation and local network developments drive regional renewal. This is illustrated through an emergent process model that outlines the arenas for entrepreneurship and renewal in a peripheral region.

BAMBER, Alec
Session ABS
Assistant Director, Geography, Australian Bureau of Statistics, Australia
Email: alec.bamber@abs.gov.au

Title: Changes to ABS Geography: The New Australian Statistical Geography Standard

Abstract: This presentation will introduce the 2011 Australian Statistical Geography Standard (ASGS) and its component hierarchical structures. It will compare each of the 5 key structures of the ASGS:

- Main Structure (Statistical Areas 1 to 4)
- Significant Urban Areas/Capital Cities
- Section of State/Urban Centres and Localities
- Remoteness
- Non ABS Structures

The conceptual basis of each and how they are most appropriately used in the presentation of statistics will also be discussed.

CAMPBELL-ELLIS, Matthew
Session 3A
University of Tasmania, Australia
Email: mattce@gmail.com

Co-author: Dr Tony McCall (University of Tasmania)

Title: Sustainable Development Platform Methods for Constructing Innovation and Managing Common Pool Resources

Abstract: Innovation is a key component of the knowledge economy within which globalised financial systems operate; and clustered innovation networks, capable of delivering Regional Innovation Systems (RIS), have become a core ingredient for individual regional prosperity (Cooke,
Access to sustainably managed Common Pool Resources (CPR) can provide a basis for constructing innovation-based advantages that deliver economic, environmental, social and cultural benefits to regional communities. The Sustainable Development Platform Method (SDPM) is a newly developed policy framework tool for community-based involvement in CPR management that aims to create networked and embedded institutional relationships that can overcome unique regional dilemmas and innovation inhibitors to develop inimitable and non-substitutable resource configurations. The SDPM is an adaptation of the Regional Development Platform Method developed by Harmaakorpi and Pekkarinen (2003) and is the result of case study empirical research conducted in regional Tasmania.

CANTERFORD, Shelby
Geoscience Australia, Australia
Email: shelby.canterford@ga.gov.au

Title: Estimating People Spatially: 2006, the Present Day, 2100 and 2:36pm on Friday

Abstract: The development of the National Exposure Information System (NEXIS) is a significant national project being undertaken by Geoscience Australia (GA). NEXIS collects, collates, manages and provides the information required to assess multi-hazard impacts. Exposure information is defined as a suite of elements at risk from a hazard which includes human populations, buildings, businesses and infrastructure. Understanding population exposure is essential for emergency planning and management. However exposure information can also be used for understanding climate change risk, assessing energy efficiency policy, urban planning and other spatial research. This paper focuses on the population aspects of NEXIS and recent work on estimation methods for the present day over any geographic extent. Preliminary work on small area population estimates to 2100 will also be presented. Finally planned future work on activity modelling, that is determining population movement throughout the day, will also be highlighted.

COLLITS, Paul
School of Global Studies, Social Science and Planning, RMIT University, Hamilton, Australia
Email: paul.collits@rmit.edu.au

Title: Where Will the People Live in a Big Australia? The Decentralisation Debate Revisited

Abstract: The Commonwealth Treasury’s recently released (2010) Intergenerational Report, in particular, its projection of a population of around 35 million by 2050, has ignited a debate over Australia’s future population. In this context, and at a time of increasing concerns over infrastructure, water availability, environmental carrying capacity, sustainability and the costs of urban congestion in the major cities, questions of future metropolitan planning, and, more broadly, whether and how much cities can accommodate future population growth, have turned into a full scale debate over the future “look” of Australia. The “problem” is largely that to grow economically Australia needs more people and more skills, that overseas migration largely drives Australia’s population growth, and that migrants generally like to live in the cities where cultural ties and job opportunities are greatest. The cities are also the places our increasingly higher education obsessed young people generally move to from rural towns. The paper examines afresh the arguments over metropolitan primacy and decentralisation in the context of the current debate over a “big Australia”, and, in particular, analyses potential new policy solutions and the impacts that these might have on country towns, especially those beyond the sea and tree change belts. It is argued that governments are
generally very poorly placed to effect large scale changes in the location of our population, and should instead focus on real strategies for empowering regions to drive their own economic futures. Such an approach would encourage devolution and more regional development and would benefit all country towns, not just spillover cities located within a couple of hours of the State capitals.

CONOLLY, Lisa
Director of the ABS Rural and Regional Statistics National Centre, Australia
Email: lisa.conolly@abs.gov.au

Title: Socio-Economic Characteristics of Regions – Developments in Access to Regional Data

Abstract: This presentation will outline some of the work of the ABS to improve the availability of and access to regional data that can be used to understand the socio-economic characteristics of regions, including:

- Developments in the use of data from the Australian Taxation Office to produce estimates of the sources of income in regions, and regional business demography (i.e. counts of businesses by industry).
- Beyond census data, what other regional data the ABS is developing to assist in understanding the social characteristics of regions - such as the use of data on the numbers of Centrelink customers (i.e. pensioners, etc.).
- How the ABS is developing its geospatial capability and access to regional data, through products such as the 'National Regional Profile', containing over 300 data items from ABS and other sources.

DALZIEL, Prof Paul
AERU, Lincoln University, New Zealand
Email: paul.dalziel@lincoln.ac.nz

Title: Education Employment Linkages: Perspectives from Employer-Led Channels

Abstract: This paper presents results from a series of key informant interviews carried out in 2009 about employer-led channels for helping young New Zealanders make effective education-employment linkages during their transition years. Employers have become more connected to education institutions, motivated in part by serious skills shortages that emerged over the last decade. Career Services is recognised as a superb source of reliable career information, advice and guidance, whose services could be more widely used. The interviews revealed a concern that large numbers of young New Zealanders undervalue the positive benefits that can be achieved with good quality career guidance. There was wide support for further development of careers education in secondary and in tertiary education institutions. Another theme concerned finding ways to better manage relationships between educators and employers, including the greater use of specialist brokers. Finally, participants emphasised again and again the importance of supporting effective systems for helping young people to imagine different possibilities for their career development, and for helping them to develop skills for exploring and assessing a full range of opportunities as they construct their own career pathways.
EVERSOLE, Dr Robyn
Institute for Regional Development, University of Tasmania, Australia
Email: robyn.eversole@utas.edu.au

Title: Enabling Regional Innovation: The Knowledge Partnering Approach

Abstract: Regional development theory and practice confront a deep contradiction: between an established theoretical position that regional change and innovation come from within, and a practical and policy imperative to facilitate and enable change from without. Knowledge Partnering (KP) has been developed from over a decade’s work in regional and rural communities in Australia and overseas. It provides a theoretical framework that overcomes this contradiction, and a new methodology for working with regions and communities to enable change. KP emphasises the importance of diverse ‘knowledges’ and institutions in development processes, and the innovative opportunities that emerge when different kinds of knowledge and institutions come together on equal footing. Over the past three years, the Institute for Regional Development at the University of Tasmania has piloted KP in its work in northern Tasmania. Evidence to date suggests that KP has the potential to stimulate innovation in regions – as well as in the institutions that work with regions. We are now seeking to work with others to further test this methodology in different regional settings. This session will introduce participants to the KP approach and some of our experiences to date, and then explore in discussion its applicability to different regional development situations.

FRASER, Jim
Aquafocus, Bacchus Marsh, Australia
Email: jim@aquafocus.com.au

Title: Influence of Bioaccumulation in Catchment Based Assets of Regional Water Supplies in Victoria

Abstract: In “Industrial Agriculture”, pesticides, fungicides and insecticides are currently operational inputs, because the profit and loss statement / business plan is the primary control document and ease of application (sprays) makes it cost effective (labour). However, in an extreme climatic event such as heavy rain, excessive runoff from recently sprayed pine plantations located within the catchments could blend an insecticide residue with a potato fungicide overspray to give the catchments and their management, a very strong cocktail. Chemical companies are introducing nanotechnology based sprays into society, creating both a new tool and a new problem that can be trans-boundary, without policy and may be currently uninsurable. In the 21st century the threat of bioaccumulation of pollutants to both, regional economies and the environment should be a catalyst for Catchment Management Authorities to be proactive in their management and focus on sustainable options for the regional industries involved.

GERRITSEN, Prof Rolf
Charles Darwin University, Australia
Email: rolf.gerritsen@cdu.edu.au

Title: An Infant Industry at the Geographic Periphery

Abstract: Aquaculture is one of the internationally successful industries of the past half century. Within 50 years it is expected to supply about 90 per cent of the fish products consumed in the
world. This paper is a case study of the Barramundi aquaculture industry in Australia’s Northern Territory. This industry was spawned (sic) by the NT Government and has spent nearly two decades getting established. Notwithstanding some natural/comparative advantages the industry is still struggling to survive, let alone expand. This paper examines the reasons for the failure to flourish of this infant regional industry.

GERRITSEN, Prof Rolf  
Charles Darwin University, Australia  
Email: rolf.gerritsen@cdu.edu.au

Title: The Clash Between Contradictory Imperatives About Development

Abstract: The Anmatyerr people live in Central Australia in an arid area about two-thirds the size of Tasmania directly north of Alice Springs. Their traditional lands are now covered by different forms of land tenure – Aboriginal Land Trusts, township freehold and pastoral leases. Mining activities (rare earths and uranium) are soon to return to their lands. Like everyone else the Anmatyerr are worried about the future. But their worries have direct implications for the nature of “development” as it is conventionally defined. This contradiction is spelled out in terms of attitudes to water. Potentially this different world view has important implications for regional economic development in Central Australia.

GREER, Lindsay  
Central Queensland University, Australia  
Email: l.greer@cqu.edu.au

Title: Regions in Transition – Land Use Issues in the Surat Basin

Abstract: The transitioning of a region from a predominately agrarian based economy to a dual sector economy involving agriculture and mineral/gas exploration and development can result in considerable land use conflict. Currently in the Surat Basin land use issues associated with increased pressures through mineral and CSG exploration and associated development activity in combination with continuous pressure for agricultural development and associated environment constraints are evident. In addition to concerns over regional land use patterns there is increasing pressure on future settlement patterns in townships within the resource intensive areas of the Surat Basin. This paper systematically examines both rural and urban land use issues beginning with an examination of recent legislative changes relating to the CSG land access code of conduct and the implicit governance arrangements that these changes suggest. The initiative to quarantine some agriculture land considered high value from exploration and mining activity forms a government response related to community protest. Critical to understanding change in the Surat Basin is acknowledgement of the power struggle between communities, global industry and governments. How this is being played out in the Surat Basin is discussed through a desktop examination of resource developments, and both housing and industrial developments.
HASLAM MCKENZIE, Prof Fiona  
Curtin University, Australia  
Email: f.mckenzie@curtin.edu.au

Co-author: Dr Amma Buckley (Curtin University)

Title: Lessons learned from the Pilbara: The Socio-Economic Ills of Mono-Economies

Abstract: The Mid West region of Western Australia is set to embrace major resource development due to an increasing global demand for iron ore. Aside from market forces, sophisticated extraction processes and emerging (or junior) mining companies are also bringing this region’s resources into play. Many impacted communities in the Mid West are welcoming the potential economic growth, yet they remain wary of the social and economic challenges experienced by neighbouring Pilbara communities. Currently, the Pilbara region generates 70 percent of the WA’s resource wealth. Due to this, the Pilbara has developed into a mono-economy dominated by the resources sector with all the attendant socio-economic weaknesses this causes, particularly high cost of living. This paper presents findings from a range of stakeholder interviews about experiences in the Pilbara and the mistakes to avoid if the Mid West (and elsewhere) is to remain a liveable community with a diverse economy, including mining.

HAYNES, Dr Kingsley  
George Mason University, United States of America  
Email: khaynes@gmu.edu

Co-author: Huaqun Li (George Mason University)

Title: Regional Inequality and Convergence in China: A Nonparametric Approach with Distribution Dynamics

Abstract: This paper explores the regional economic inequality and convergence across Chinese prefectures. Unlike most of the existing studies on China’s regional economic disparity, a data set at the prefecture level is employed to investigate regional disparity during the 1997-2007 period. First, the Theil decomposition of regional inequality under two different spatial partitioning schemes, which is economic regions and three belts, to investigate the dispersion side of the regional convergence. The results show that the share of interregional inequality is higher under the economic region partitioning scheme. Second, Non-parametric techniques are employed to study the regional economic convergence across Chinese prefectures. The distribution dynamics approach revealed different patterns between the inland and coastal regions. This paper contributes the existing studies on China’s regional disparity both through emphasizing the important effects of spatial scales and spatial dependence.

HOATH, Dr Aileen  
Curtin Graduate School of Business, Australia  
Email: A.Hoath@curtin.edu.au

Title: Regions in Transition – Corporate Social Responsibility: A Mechanism for Viable Rural Futures?
**Abstract:** Corporate Social Responsibility discourse emerged in tandem with environmental and social advocacy. A 2002 IIED and WBCSD global review of the mining and minerals sector is prefaced with the observation that, although ‘almost everyone’ is implicated in minerals production and use chains, since the 1990s mining corporations have been increasingly challenged to improve ‘social, developmental and environmental performance’. One driver has been a growing and increasingly vocal concern over inequities in the distribution of both the benefits and costs of such industry, particularly the disproportionate burden born by host communities. Extant literature reveals much about the intersection of corporate mining with remote and indigenous communities. This paper responds to a need for critical policy analysis of social tensions emerging in relation to new mining operations in less remote, more populated, and often rapidly transforming, agrarian regions of Australia. In Western Australia, Newmont has incorporated social responsibility strategies into its recommissioning and expansion of Boddington Gold Mine. Feedback reveals considerable inter and intra-community differences in mine-related grievances, aspirations and expectations. Drawing on secondary literature and informal interviews, the paper examines the values underpinning local resistance to increased heavy transport movements as a window into the challenges of integrating large scale mining operations with certain rural ideals.

**HOWELL, Prof Kerry**  
Plymouth University, United Kingdom  
Email: kerry.e.howell@plymouth.ac.uk

**Title:** Culture in an Evolving Regional Institution: Analysing Agency, Leadership and Path-Dependency

**Abstract:** Can leadership reflected as ‘agency’ identify the source of institutional ‘path-dependency’? To what extent may the foundations of path-dependency be discovered in policy development? If path-dependency is a reflection of agency and individual cultural perspectives can path-dependency be identified in the ideals and debates that underpin the rationales of individuals in emerging institutions? Overall, does the relationship between agency and path-dependency have implications for leadership and institutional cultural environments? In this paper, Welsh Assembly Member activity (agency as leadership) is analysed in relation to sources of path-dependency in the Welsh Assembly (WA) and through leadership theory individual action in a new and evolving institution investigated. Two sets of interviews and surveys provide AM perspectives of the Assembly in relation to the evolving leadership capability and institutional culture.

**ITO, Dr Hidekazu**  
Kwansei Gakuin University, Japan  
Email: hito@kwansei.ac.jp

**Title:** Container Handling Concentration in Asian Port Systems: Decomposition Analysis of the Gini Coefficient

**Abstract:** This study discusses traffic inequality in Asian container port systems by conducting an inequality decomposition analysis of the Gini index. Specifically, the Asian container port systems considered in this study comprise 40 major container ports, which are classified into five port ranges according to their geographic location; further, the study uses container traffic data from 1980 to 2005 at five-year intervals. The results show that traffic inequalities in the ranges of Japanese and
East Asian container ports are clearly decreasing, even though there was little change in the traffic concentration level, or the simple Gini coefficient, of the total port system during the data period. Moreover, the share of the between-range effect, which reflects the structural difference between port ranges for the total port system, increased from 47% to 67%. In contrast, the share of the overlapping effect, which reflects the structural similarity between port ranges for the total port system, decreased from 35% to 18%. Although container hub function enhancements have been made in major ports in China, Korea, and Southeast Asia, an increasing trend of the between-range effect is noticeable; in other words, the degree of relative homogeneity between Asian ports ranges is decreasing. Thus, this study concludes that the trends in the container-handling concentration in Asian port systems will be based on the economic growth of each region.

JAIN, Ameeta
Deakin University, Australia
Email: ameetaj@deakin.edu.au

Title: Knowledge Distribution Nodes and Home Based Businesses: Role of Business Associations and Local Council in Casey LGA

Abstract: This paper examines the structure, function and role of local business associations in home based business development within an urban region. Casey local government area (LGA), Victoria, is the focus, where nine local business associations in the area (as well as the local council) are evaluated in the context of support for local-based business development. The evaluation draws upon primary data collected by surveys of local home based businesses, and follows up by semi-structured interviews of representatives from these business associations and the local council. This paper identifies that local business associations are fragmented and have significant overlap in their activities of which the commonest activity is acting as a knowledge distribution node. The cash strapped local council is the most important node. All are restricted by vision and resources. As a result, the services provided have little impact on sustainable business development in Casey.

KABIR, S. M. Zobaidul
University of Newcastle, Australia
Email: c3002753@uon.edu.au

Co-author: Salim Momtaz

Title: Effective Environmental Impact Assessment (EIA) and Project Sustainability: A Case Study in Bangladesh

Abstract: The aim of this paper is to investigate the effectiveness of implementation of mitigation measures for achieving sustainability of development projects in Bangladesh. The mitigation measures are the central of EIA effectiveness. Effective implementation of mitigation measures at the post-decision stage of EIA can make the project sustainable. EIA has been formally used in Bangladesh since 1995 to ensure sustainable resource management. However, no study is yet to be conducted on how EIA is contributing to achieving this aim of EIA. This empirical study fills this gap. A multi-method approach was used to collect data involving interview, site visit and observation, and document analysis. Interview data were analysed using NVivo8 software. Three projects were selected as cases and investigated. This study identifies the weakess in the effective implementation of mitigation measures and recommends for the areas of improvement taking
example from Australia and New Zealand’s EIA practice. It is expected that the study will contribute to improve the EIA practice in Bangladesh. Also the findings of the research will be useful to academics and other countries of similar context.

MARDANEH, Dr Karim
University of Ballarat, Australia
Email: k.mardaneh@ballarat.edu.au

Title: Clustering Australian Regional Areas: An Optimisation Approach

Abstract: Grouping regional towns in Australia based on economic functions helps to better understand the importance of economic factors in determining growth. Different researchers have examined the growth and characteristics of regional towns in Australia. Beer and Maude (1995) examined characteristics and growth rates of Australian regional cities by grouping regional cities with a population greater than 10,000. Cluster analysis is not always an easy task. Beer and Clower (2009) conducted cluster analysis to group regional cities according to industry structure and using the percentage of the workforce employed in each industry sector. Researchers need to determine for themselves how many clusters comprise the best or most reasonable solution. As Baum et al. (1999) states “there is no one best way by which to choose a ‘solution cluster’”. There is therefore a gap in the literature in terms of using an efficient method. This paper attempts to address this gap by building upon previous studies using a recently developed optimization based clustering algorithm - global k-means algorithm (GKM) - (Bagirov and Mardaneh, 2006). The main advantage of this algorithm compared to currently used algorithms is that it is an optimization based algorithm, and it functions more accurately. This paper argues that using this algorithm will help with more accurate clustering of regional towns and cities.

MARTIN, Prof John
Director, Centre for Sustainable Regional Communities, La Trobe University, Australia
Email: John.Martin@latrobe.edu.au

Co-author: Quentin Farmar-Bowers

Title: ‘Dewatering’ Australia’s Foodbowl: Regional Development Policy at the Confluence of Structural Adjustment in Agriculture, a ‘Modernised’ Irrigation System and an Ageing Rural Society

Abstract: The hotter and dryer climate now being experienced in Australia’s food bowl - the irrigated land along the Murray River in Northern Victoria and parts of southern New South Wales, from Yarawonga in the east to Swan Hill and beyond in the west and in some places reaching 100kms south into Victoria – has led to current government action addressing the extent of water trading in the Murray Darling Basin and, in the longer term, the nature of the infrastructure provided to deliver water for agricultural production. The Northern Victoria Irrigation Renewal Project is a $2billion investment over five years to ‘rethink, redesign and rebuild’ the irrigation network. As part of this process NVIRP has identified farms which will no longer be able to access the ‘backbone’ – channels and pipes delivering water– and these ‘dewatered’ areas will become the ‘new dryland’ farms. This is happening as other contextual factors loom large on Australia’s foodbowl. This includes increasing competition from imported food products placing cost pressures on farmers to ‘get bigger or get out’. At the same time the age of the Australian farmer is steadily increasing and many are looking to
exit farming. In this paper we document the structural changes to the irrigation system that is Australia’s Foodbowl identifying those areas that are to be dewatered. We report on strategies being employed by local institutions to assist farmers to make the necessary adjustments to the new dryland farming. Do they embrace the shift to new dryland farming and what are the consequences for regional development policy in these communities?

MCDONALD, Dr Chris  
Victorian Department of Planning and Community Development, Australia  
Email: chris.mcdonald@dpcd.vic.gov.au

Co-authors: Dr Andrea Kirk-Brown (Monash University), Assoc Prof Lionel Frost (Monash University) and Prof Al Rainnie (Curtin University)

Title: Partnerships and the economic development of regions: the case of North-West and Western Tasmania

Abstract: Place-based partnerships are supported by the state and include various organisations and interests within particular geographic areas. The Australian Government has supported place-based partnerships to plan and coordinate resource allocation decisions to promote regional development. Using interviews and document analysis, we examine the role of partnerships in promoting development within North-West and Western Tasmania – a region that has experienced economic restructuring. This partnership has enhanced collective efficacy and built political capital amongst key institutional actors – two preconditions for effective regional development policy. We build a theoretical framework that can help explain the connection between partnerships and the economic development of regions. These findings have important policy implications, including the need for more flexible approaches to regional policy and funding rules and to ensuring that there are transparent processes in which a broad range of interests can be included in regional planning.

MCDONALD, Dr Chris  
Victorian Department of Planning and Community Development, Australia  
Email: chris.mcdonald@dpcd.vic.gov.au

Title: Managing the Spatial Economy through Strategic Planning: The Victorian Approach

Abstract: Over the past 30 years Australian governments have implemented institutional reforms that reduce barriers to the movement of capital. At an aggregate level this has seen per capita incomes rise by 30 per cent, and in the Victorian case a shift away from manufacturing to service based industries. There has been a recent resurgence in national interest in the distributional outcomes of these changes between geographic areas. For example, public debates about how to effectively manage the growth of our capital cities, and boost the economic development of regional areas. An important consideration missing in these debates is the actual evolution of local and regional development policy at a state level. This presentation will outline how successive Governments in Victoria have managed the spatial economy. Improving understanding of this Victorian approach will help contribute to future policies to address these distributional issues.
**Title:** Effectively Funding Regional Infrastructure: The External Environment

*Abstract:* Current funding models for regional infrastructure are inadequate. While this is widely discussed, surprisingly little attention is paid to key characteristics of infrastructure, the host regional economy or the external funding environment. Policies insensitive to such things can not only unwittingly generate a raft of problems but also irreversibly dissipate funds across infeasible projects. Of the three aspects, it is the external environment that is the focus of this paper. Deterioration in the external wealth of Australia over the last generation poses serious regional challenges, as exemplified here by Queensland. Thirlwall (1980) provides a relevant conceptual basis upon which more to build more adequate appraisals of external environments and impacts. External conditions, including funding costs, change markedly over time as can the availability of suitably structured finances. Regional mega-projects and the post GFC environment each present particular risks which should be explicitly addressed in assessments.

**Title:** The Influence of Tertiary Institutions on Regional Youth Migration in Victoria

*Abstract:* This paper presents findings from a quantitative study, the objective of which was to gain insight and understanding about migration patterns of young adults as they move through tertiary education. The project comprised focus groups and in-depth interviews, and had a particular focus on the outcomes of regional and metropolitan locational choices. Those who chose to undertake university study in the country often wanted to maintain proximity to family and friends. Others faced constrained choices due to financial considerations or their tertiary entrance score not being high enough to get into a Melbourne-based university. This latter reason was also a factor for Melbourne residents who moved to regional universities. A desire for city life and its excitement was a driving factor for those moving to the city to study at university. Many also perceived Melbourne to have superior educational facilities and career opportunities. Moving to the city was viewed as a significant part of the growing up process and attainment of independence. Although many of those at regional universities felt that the quality of education may have been better in the city, they were compensated by smaller class sizes and greater interaction with lecturers. For those who moved to Melbourne, the degree to which their lives became established in their new place of residence often influenced their decision to stay, as did the desire to pursue career objectives. Nevertheless, many indicated they would move back to the country when they were ready to raise a family. Interestingly, a number of students who chose to study at a regional university were ready to make a move to the city as graduates. This was found to be particularly important for those studying nursing where the desire for further study and experience of specialist fields made Melbourne a more attractive option than regional Victoria.
**Title:** Metropolitan Growth Policies and New Housing Supply: Evidence from Australia’s Capital Cities

**Abstract:** This paper empirically examines the relationship between house price change, metropolitan growth policies, and new housing supply in Australia’s 5 major capital cities. Our hypothesis suggests capital cities with tighter regulations on new development will have fewer housing starts and price elasticities than those in less-regulated markets. The empirical procedure used in this paper utilises the Urban Growth Model of Housing Supply developed in Mayer and Somerville (2000a and 2000b) and employed in Zabel and Patterson (2006) by using quarterly data on housing approvals and house prices from 1993-2010. Data on metropolitan growth policies in Australia is borrowed from Hamnett and Kellett (2007). Preliminary findings indicate that new housing supply in Australian capital cities is elastic to housing price changes, as a one percent increase in prices leads to an 8.8 percent increase in housing approvals over five quarters. While this indicates a properly functioning housing market, the estimated elasticity is about half of other developed countries, such as the United States. Furthermore, the use of established growth policies, such as urban growth boundaries and urban consolidation, appears to have no impact on new housing approval. However, the adoption of new-style growth policies, such as development corporations and infrastructure levies, appears to decrease new housing approvals by 4 percent.

---

**Title:** Using Functional Economic Regions to Improve the Analysis of Labour Market Performance in Australia

**Abstract:** This paper employs a new geography of Functional Economic Regions (FERs) that has been created across the large metropolitan city regions and across the non-metropolitan areas of the nation. The FERs are aggregates derived from SLAs (Statistical Local Areas) utilising a methodology that optimises within-region self-containment of commuting to jobs. Up until now spatial labour market analysis in Australia has used the administrative geography (for example, Statistical Divisions, SLAs, Local Government Areas, Labour Force Regions) - for which census and other data are available. This geography introduces various statistical problems (for example, spatial autocorrelation) largely because it does not reflect areas of self-contained economic behaviour (local labour markets). The new functional regions aims to provide a much improved geography for the analysis of aspects of labour market performance. The paper briefly describes the functional regional geography and then applies it to investigate aspects of regional labour market performance. It is demonstrated how the FER geography largely overcomes the spatial autocorrelation problem previously encountered using the administrative regions.
Title: The Role of the Hinterland in Auckland’s Economic Development

Abstract: The political reconstruction of the Auckland region as a ‘supercity’ has been heralded as the means by which the region’s economy can best be developed. The process has instigated much debate over the connections between the region’s various parts and where the new city’s boundaries should be drawn. These have highlighted stark differences in how economic relations across the region are perceived, and the division in attitudes towards including the semi-rural hinterland districts in this new political entity. This paper explores the key development issues facing the Auckland region’s hinterland districts through detailed examination of their key economic activities and through consideration of the large number of submissions to the 2009 Royal Commission on Auckland Governance. It draws some conclusions about the relationship between the rural and urban aspects of Auckland and the key issues that will face the new Auckland Council in optimising development across the entire region.
Abstract: The substantial level and steady growth in global trade to and from Australia has generated growth in the movement of sea and air freight. Simultaneously, this industry has undergone major structural changes in scale, mode of operation and ownership following innovation in supply chain management. Together these changes have re-shaped the pattern of movement of freight into and through the ports and airports of Australia. This paper investigates the spatial impact of these changes. The paper draws upon examples from overseas to develop a model that shows how this activity has had a steadily expanding spatial impact from the local to the metropolitan fringe and potentially non-metropolitan locations as innovation have affected the scale of operation and the design of warehouses. It uses data on the location of employment and recent warehouse construction to illustrate the impact in Melbourne. Results show that the location of warehouse and storage functions, influenced in part by port and airport access, have contributed to the fringe suburban expansion of the metropolitan area. That expansion is expected to continue and may call for new infrastructure investment in road and rail systems. The possibility of re-location to non metropolitan regions is canvassed.

O’MALLEY, Tony  
School of Management, University of South, Australia  
Email: tony.omalley@adelaide.on.net  
Title: The Transactions Sector and Regional Productivity

Abstract: Wallis and North (1986) examined economic development by dividing economic activity into a transactions sector and a transformation sector. They and others (Dollery and Leong 1998; O’Malley 2008) suggest a positive association between national economic growth and the total resources used in the transactions sector, expressed as a share of Gross National Product. Bischoff (2002) found that the increasing share of transactions activities in Germany was due to the increasing productivity of transactions agents, relative to transformation agents, as transaction services enabled gains from new technologies to be captured. This paper describes the share of the transactions sector in the labour force, by industry and by state, using detailed data on occupation by industry of employment from the Australian Census of Population for 1991, 1996, 2001 and 2006; and compares the results with state productivity data, before drawing implications for regional policy.

PADILLA, Florida  
National College of Public Administration and Governance, University of the Philippines  
Email: fspadilla@up.edu.ph  
Title: Community Empowerment: A Case of the Coastal Resource Management Program in Dauin, Dumaguete City, Philippines

Abstract: This is a descriptive study of how Community Empowerment is attained through the Coastal Resource Management Program initiated by the local government officials of the town of Dauin, Dumaguete City, Philippines. The program calls for the protection of environment but the improvement of the coastal areas became an income generating scheme as the developed natural beauty of the town’s seawater attracted local and foreign tourists. The coastal areas that previously earned 1.2 million pesos (30,000AUD) a year earned the same amount for the first half of 2005 alone, and now with more than ten marine sanctuaries successfully established, the fourth-class municipality in the city has been collecting more than P200,000 (5000AUD) a month. A top-bottom
approach proves that the community empowerment and strengthening the capacity of the residents mean that a poor community does not have to wait for the national government to provide better qualities of life for its people.

PADILLA, Florida  
National College of Public Administration and Governance, University of the Philippines  
Email: fspadilla@up.edu.ph

Title: Towards the Institutionalization of Social Protection for the Workers in the Informal Sector

Abstract: This study looks into the state of the policy on social protection for the workers in the informal sector (IS) in the country. The researcher argues that the IS workers are robbed with benefits enjoyed by their counterparts in the formal sector and no institutionalized forms of protection are available for them. The paper underscores the role of social protection in addressing the exclusion of IS workers, the problems faced by the IS workers and the schemes that can address these problems. The researcher hopes to determine any alternative social security scheme after the failure of both houses of Congress to prioritize legislation protecting the most ‘vulnerable’ sector in the society during the 14th Congress when the IS bill was first filed. The study finds that there is no institutionalized form of social protection particularly for the informal sector, noting that the concept of social protection appear vague for various groups. No law has been enacted to provide the needs and protect the rights of the IS workers. The researcher recommends one alternative for each criterion suggested in the study. In sum, the alternatives for policy intervention focused on building up on the sector’s strengths to protect and empower them in managing themselves in all forms of risks.

POOT, Prof Jacques  
University of Waikato, New Zealand  
Email: jpooot@waikato.ac.nz

Co-authors: Prof Peter Nijkamp (VU University Amsterdam) and Prof Ceren Ozgen (VU University Amsterdam)

Title: The Impact of Immigration on Innovation: Evidence from European Regions

Abstract: The pooling of people with diverse backgrounds in particular areas may boost the creation of new ideas, knowledge spillovers, entrepreneurship and economic growth. In this paper we measure the impact of the size, skills and diversity of immigration on innovativeness of host regions. For this purpose we construct a panel of data on 170 regions in Europe (NUTS 2 level) for the period 1991-2001. Innovation outcomes are measured by means of the number and types of patent applications. Given the geographical concentration and subsequent diffusion of innovation activity, and the spatial selectivity of immigrant settlement patterns, we take account of spatial dependence and of endogeneity of immigrant settlement in the econometric modelling. We find that patent applications in a region are associated with (i) population size; (ii) population density; (iii) the share of foreigners in the population of the region; (iv) the average skill level of the immigrants; and (v) the cultural diversity of the immigrants. The magnitude of these effects varies between types of patents.
**SAUNDERS, Prof Caroline**

AERU, Lincoln University, New Zealand

Email: caroline.saunders@lincoln.ac.nz

Co-author: Paul Rutherford and Prof Paul Dalziel (AERU, Lincoln University)

**Title:** Economic Development Model: Selecting Sectors for Optimal Outcomes

**Abstract:** The Economic Development Model aims to identify and quantify the impact of growing sectors in the economy. The model directs the selection of sectors which could facilitate future growth in the economy and quantifies the impact of these. It also incorporates the key factors needed to drive these sectors alongside industry consultation. The model is based on a set of common sectors with the emphasis on export sectors and their wider impact. Key output for these sectors and their key inputs are also incorporated in the model. Two modules shape the Economic Development Model – Sector Selection and Impact Assessment. The Sector Selection module identifies given sectors as potentially favourable for development under a ranking system. Several units feed into the sector analysis. The ‘International Opportunities’ unit identifies sectors that have an advantage over other industrially advanced economies and quantifies which of these sectors are likely to grow in the future. This unit acts in conjunction with the ‘Profile and History of Sectors in the Economy’ unit that incorporates the local economy in the analysis. The Sector Selection module is complemented by the ‘Economic Contribution’ unit that takes into account the upstream and downstream effects as well as the productivity of the sectors. The results of this are presented showing the highest potential sectors for Christchurch are Business services.

**SHARPE, Dr Samantha**

Centre for Business Research, Australia

Email: samantha.a.sharpe@gmail.com

**Title:** Sub-Metropolitan Innovation Systems: Interpreting Innovation within the Outer Metropolitan Region of Sydney

**Abstract:** The aim of this paper research is to understand the socio-economic development of a metropolitan region in Sydney through an analysis of regional innovative activity. South West Sydney, a major growth region within Sydney, includes the Local Government Areas (LGAs) of Liverpool, Campbelltown, Camden and Wollondilly. The role of innovative activity has a central place in economic development and this paper uses a ‘systems of innovation’ (SI) approach to examine innovative activity in the South West Sydney region. SI understands innovation as a socially embedded process of transforming ideas and knowledge into novel products, processes and services through the processes of learning and searching. The RIS literature provides two fields of understanding of what constitutes a regional innovation system: ideal systems and other systems. The innovation systems represented in the ‘ideal’ regions are largely a world away from what is available and what is necessary in the encouragement of RIS in most other regions. This paper aims to contribute to a method that allows for interpretation of a wider range of innovation activities through the analysis of knowledge intensive services activities (KISA).
SHARPE, Dr Samantha
Centre for Business Research, Australia
Email: samantha.a.sharpe@gmail.com

Title: Commercialising Science: The Long Path from Lab to Market

Abstract: This paper examines the commercialisation of breakthrough technologies from science base to viable commercial applications through a case study analysis of photovoltaics technology. Breakthrough technologies emerge from novel and discontinuous innovations that result in significant and irreversible changes. These innovations are based on new, under-or un-exploited physical, chemical and biological phenomena, that allow order of magnitude improvements in the performance of existing products and/or the creation of entirely new ones. These novel innovations may entail the development of ‘new technology platforms’ with applications across a range of products and markets. The case study illustrates the dramatic changes breakthrough technologies can make on the industrial landscape and the context surrounding discovery and commercialisation of these technologies. The potential for industrial development; enhanced national competitiveness; employment and export growth are the motivators for government activity in technology development. These upside gains can outweigh the downside risks of commercialising these technologies and the knowledge that most of these attempts at breakthrough technologies will come to nothing.

SIJABAT, Rosdiana
Flinders University, Australia
Email: sija0001@flinders.edu.au

Title: Testing the Leviathan Hypothesis: Evidence from the Provincial Government Level in Indonesia

Abstract: Since 2000s, fiscal decentralization has been advocated in Indonesia. It involved significant changes on public spending structure and intergovernmental fiscal relationship among government tiers. This paper employs a time-series regression technique to determine whether or not Leviathan hypothesis on decentralization to be evidence at the provincial government level in Indonesia. Leviathan hypothesis is summarized: “Total government intrusion into the economy should be smaller, ceteris paribus, the greater the extent to which taxes and expenditures are decentralized” (Brennan and Buchanan, 1980, p. 185). In other simple words, decentralization limits the growth of government spending in a decentralized country. The objective of this paper is to enhance the understanding of the relationship between fiscal decentralization and government spending from the fiscal decentralization variables and other control variables at local government level.

SIJABAT, Rosdiana
Flinders University, Australia
Email: sija0001@flinders.edu.au

Title: Regional Inequalities of Educational Development in Indonesia: An investigation on the Impact of Decentralization

Abstract: Since the early 2000, significant process has been made with regard to financial and political setting in Indonesia. It is continued with the implementation of fiscal and political decentralization in 2001. Fiscal decentralization can be considered as an effective tool for resources allocation, correcting imbalances, and promoting development equality. While political
decentralization can be described as a program geared toward increasing effectiveness of public services, including education service by transferring centralized decision-making from central government through local government. Using qualitative and quantitative approaches, the present paper examines the decentralization program in Indonesia, with aim of investigating the impact of the decentralization on the educational development at regional level. Findings from this study are significant to be considered in developing future education policies and programs, not only in Indonesia, but also in other countries that have initiated decentralization.

SINGH, Prof Surendra  
North-Eastern Hill University, India  
Email: surendra_singh48@hotmail.com

Co-author: Assoc Prof Prem Chhetri (School of Business IT and Logistics, RMIT University)

Title: Regional Structure of Indian Agriculture: An Analysis of Post-Liberalization Phase

Abstract: This paper examines the regional structure of Indian agriculture after the implementation of liberalization policies introduced in early 1990s. Delineating physiographic regions as stable regions and using district as an Operational Taxonomic Unit (OUT), we have analyzed the inter- and intra-regional variations to study the regional structure of Indian agriculture. Intra-regional variations are interpreted by amalgamating space into similar OTUs within the each region using twelve-dimensional functional features of agriculture. A ‘cluster combination technique’ is applied for the identification of variability occurring in agricultural properties for the post-liberalization phase (2000-2001). Euclidean distance measures are computed for delineating features on an m-dimensional space. After analyzing the amalgamation process of OTUs for each physiographic region, it is concluded that there is direct effect of agglomeration economies on intra-regional inequalities especially in the regions located in the Great Plains of India. The size and growth of local towns and the density of road network have a direct bearing on the changes in regional structure of Indian agricultural system.

SORENSEN, Prof Anthony  
University of New England, Australia  
Email: Tony.Sorensen@une.edu.au

Title: Quantum Dreaming: The Relevance of Quantum Mechanics to Regional Science

Abstract: Regional Scientists are no doubt familiar with such concepts as Wicked Problems and Social Messes, which describe a human world of great complexity and uncertainty. Both dramatically affect the accuracy and effectiveness of our analysis of regional economic process and policy prescription alike. This paper adds additional layers or dimensions to Wicked Problems and Social Messes via analogy with concepts derived from Quantum Mechanics, a branch of particle physics itself shrouded in great complexity and uncertainty. For example, Heisenberg’s (1930) uncertainty principle asserts the impossibility of stating accurately both the location and velocity of matter on account of its simultaneous wave- and particle-like behaviour, ideas that appear to apply to economic systems. Quantum mechanics also entertains the weird notions of entanglement and superposition, the latter of which led Schrödinger’s famous mind-game in which he proved that a cat could be simultaneously alive and dead and Einstein’s disparaging remarks about the entire field. Yet our spatial economic systems seem to embody elements of both entanglement and superposition. So
join me in a romp through the strange world of Quantum Mechanics with potentially strange implications for theoretical development in regional science and ensuing public policy.

**STIMSON, Prof Bob**

University of Queensland, Australia

Email: r.stimson@uq.edu.au

*Title*: Australia's Changing Economic Geography Revisited

*Abstract*: For some time Australia has been exhibiting the hallmarks of a ‘two speed economy’ in which the sun-belt states are surging ahead fed by internal migration and the resources boom. But the nation has always been one in which marked regional differences have been evident in economic performance, with the nature and magnitude of those differentials changing according to the level of aggregation/disaggregation used in analysis and modelling. The address provides an overview of Australia’s changing economic geography over the last two to three decades, highlighting the changing nature of the socio-economic divides that have occurred, and speculating on what might lie ahead.

**SYED, Irfan**

University of Queensland, Australia

Email: irfan@itee.uq.edu.au

Co-authors: Prof Bob Stimson, Tung-Kai Shyy, Friska Ungkarapambudi (University of Queensland) and Prof William Mitchell (Centre of Full Employment and Equity, University of Newcastle)

*Title*: Open Source E-Research Facility for Socio-Spatial Data Analysis

*Abstract*: Under the ARCRNSISS Shared Research Resources program and an ARCLIEF project, researchers are developing a prototype open source e-research facility for social-spatial data analysis that incorporates GIS-enabled visualisation (mapping and classification) and statistical modelling capabilities. The e-research facility will give researchers online access to a socio-spatial data system including metadata directories containing Australian Bureau of Statistics (ABS) and ‘value added’ data variables for different levels of geography which may include statistical local areas (SLAs), functional economic regions (FERs) and polling booth catchments (PBCs). The e-research facility foundation is built with dependable and extensible open source technologies such as Geoserver, R, Java and PostgreSQL to deliver a flexible platform for the future. Interactive and standards compliant web 2.0 client experience is provided by javascript library-Jquery. Our example applications explore the relationships between socio-spatial variables for FERs - with statistical functions such as regression and MANOVA clustering. The web-based framework enhances the capacity of researchers and students to undertake socio-spatial data analysis anywhere and anytime. The open source client-server architecture decouples the computing complexity at the end user by avoiding installation and configuration.
**TELFORD, Jenny**

Director of Census Products and Services, Australian Bureau of Statistics, Australia  
Email: jenny.telford@abs.gov.au

**Title:** Census 2011 Regional Engagement and Output Plans

**Abstract:** Australia’s sixteenth national Census of Population and Housing will be held on 9 August 2011 and will mark the centenary of national Censuses in Australia. The Census aims to accurately measure the number and key characteristics of people in Australia on census night and the dwellings in which they live. This presentation will focus on:
- How the ABS plans to optimise coverage of the full Australian population for the 2011 Census.
- Regional engagement strategies that are underway to help deliver on the outcomes of the Census.
- How the Census is preparing to transition to the new Australian Statistical Geography Standard (ASGS) and what this will mean to data users.
- Plans for how 2011 Census results will be made available to data users in 2012.

---

**VIDYATTAMA, Yogi**

NATSEM, University of Canberra, Australia  
Email: yogi.vidyattama@natsem.canberra.edu.au

Co-authors: Rebecca Cassells, Prof Ann Harding and Dr Justine McNamara (NATSEM)

**Title:** Rich or Poor in Retirement? A Small Area Analysis of Australian Private Superannuation Savings in 2006 Using Spatial Microsimulation

**Abstract:** Substantial differences in retirement savings exist among Australians. Little is known, however, about how these patterns play out at a small area level, partly due to an absence of available data about wealth holdings at a small area level. In this paper, we use spatial microsimulation techniques to produce estimates of superannuation savings for Australian men and women who in 2006 aged between 45 and 60 years at a Statistical Local Area (SLA) level. Our findings show substantial differences between Australia’s small areas in terms of both superannuation ownership and median balances.

---

**WATERS, Elissa**

Department of Planning and Community Development, Victoria, Australia  
Email: elissa.waters@dpcd.vic.gov.au

**Title:** Investigating Community Responses to Environmental Change: The Lake Boga Study

**Abstract:** This paper outlines the findings and methodology of a qualitative research study which aimed to investigate how one community has responded to significant environmental change in regional Victoria. The findings highlight the multiple ways in which communities are currently responding to observed environmental change. They give valuable insights into likely future responses as well as provide important lessons on the opportunities and barriers for community adaptation. Using a multidisciplinary approach, the project developed an innovative research model which has led to insights on how to produce qualitative research that is useful for both decision makers and the community. The project was undertaken in the northern Victorian town of Lake Boga.
in late 2009 by the Victorian Department of Planning and Community Development. In 2008 the lake that was the major source of recreation and tourism for the area dried up completely. In a series of 35 in-depth interviews, information was gathered that gives detail to the community’s attitudes, experiences and responses to the lake drying. The findings include information on resident’s expectations of government in times of change, attitudes towards climate change, the social and economic impacts and demographic impacts such as out migration. Qualitative research such as this gives rich and detailed information that can be particularly useful for interdisciplinary policy questions. The findings of this research relate to a broad range of interdisciplinary issues including water management, community development and wellbeing, the multiple issues of governance under uncertainty, the spatial implications of demographic change and climate change adaptation. The process used to undertake the Lake Boga project involved input from both community leaders and key policy makers throughout all stages of the project including: the design and scoping of the research; the fieldwork, and the final analysis. This process was an innovative way to communicate information to a diverse range of players both at a local and government level. Throughout the project the research team acted as brokers of information in order to connect the local community with government policy makers.

WATTS, Prof Martin
Centre of Full Employment and Equity, University of Newcastle, Australia
Email: martin.watts@newcastle.edu.au

Title: An Application of Feng’s FST Methodology to the Design of Australia’s New Statistical Geography

Abstract: The ABS is redesigning the geography which underpins its output of Australian labour market data. The groups of areas (SA4s) must satisfy population criteria which differ between state capital cities and the regions. The construction of SA4s by the ABS was ad hoc, but informed by solutions from the Intramax and Coombes grouping algorithms which were applied to Statistical Local Area based commuting data. We amend the Coombes algorithm to incorporate the population criteria and generate a grouping solution for Sydney, which is combined with the ABS regional NSW groups. Incremental adjustments to these groups are made by using unbiased specifications of Feng’s Membership Function to identify misallocated areas. Summary statistics are calculated for this new set of NSW groups to show that it appears to be superior to the grouping developed by the ABS, and to highlight the importance of Feng’s fuzzy set methodology in complementing the Coombes’ algorithm.

WELLER, Dr Sally
Centre for Strategic Economic Studies, Australia
Email: sally.weller@vu.edu.au

Co-authors: Prof Beverley Jackling (Victoria University), Prof Paul De Lange (RMIT), Prof Graham Wines (Deakin University) and Dr James Faulconbridge (University of Lancaster)

Title:Globalising the Labour Market for Accountants: Reconciling Employer Demands with the Aspirations of Migrant Professionals

Abstract: In recent years, Australia has competed for global talent is by designing state policies that encourage international students that study in Australia to take up permanent residency after
graduation. Australia is not alone in pursuing such a strategy (United Nations, 2004). Yet despite the intensification of migration flows and the likelihood of even greater international mobility of skilled labour (World Bank, 2009), there has been surprisingly little analysis of the how migration impacts on local and regional labour markets (Bauder 2006; Wills et al, 2009; Stenning and Dawley, 2009), or on the outcomes of this process for skilled migrants. This paper examines these issues in the case of accounting. It uses data collected in pilot interviews with accounting firms and data from graduating student exit surveys to explore the employment prospects of former overseas students of accounting who have taken up permanent residency in Australia.

WELLER, Dr Sally  
Centre for Strategic Economic Studies, Australia  
Email: sally.weller@vu.edu.au

Co-authors: Jenni Blencowe, Kathy Earp and Monica O’Dwyer (Adult Migrant Education Services)

Title: The Employment Pathways of Adult Migrant English Program (AMEP) students in Melbourne

Abstract: The AMEP is for newly arrived migrants and refugees who do not have functional English. The paper reports the preliminary findings of a longitudinal study of the employment pathways of AMEP students in Melbourne. Over three waves of survey data outcomes, we found that, eighteen months after arriving in Australia, only some students were able to find work in Australia, but usually at much lower status and skill level than pre-migration. We identify some of the characteristics that are related to re-entry into the workforce for refugees and migrants with low levels of English and begin to distinguish some of the features associated with labour market mobility over time.

WELLER, Dr Sally  
Centre for Strategic Economic Studies, Australia  
Email: sally.weller@vu.edu.au

Co-author: Jenni Blencowe (Manager Research and Policy of Adult Migrant Education Services)

Title: Where in Melbourne do the Newest Settlers Settle?

Abstract: The city of Melbourne has accepted large numbers of new settlers in recent times. In the years that fall in between ABS Census collections, it is difficult to obtain accurate information about where in the city new settlers settle. This presentation used GIS technologies to display graphically the residential locations of newly arrived migrants and refugees who participated in Adult Migrant Education Services (AMES) language classes in the 2008. The data shows the different patterns of settlement for different ethnic groups and entry categories (migrant, refugee or family reunion) and highlights some issues for the location of English language services. We discuss the implications for the location of English language education services.
WINES, Assoc Prof Graeme
Deakin University, Australia
Email: winesg@deakin.edu.au

Co-authors: Dr Rodney Carr (Deakin University), Prof Barry Cooper (Deakin University), Prof Colin Ferguson (University of Melbourne), Dr Phil Hellier (Deakin University) and Prof Beverley Jackling (Victoria University)

Title: Public Accounting Firm Services in Rural and Regional Australia: Practitioner Views

Abstract: The services provided by public accounting firms provide substantial economic benefits to society, but there are significant differences in the provision of such services in rural and regional Australia in comparison to metropolitan areas. This paper reports the findings from a large-scale survey of professional accounting firm practitioners located in rural and regional Australia. The paper provides a background description of Australian rural and regional public accounting practices and their services, finding that their service provision, despite difficulties arising from their geographical location, is generally at a high level. The paper documents some significant concerns and tensions, including adverse effects arising from the employment market, communications technology and recent legislation. Examples of recent legislation that have raised difficulties for rural and regional accounting practices include the Financial Services Reform Act 2001 and the Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004. The paper presents recommendations for a number of measures that will ensure that accounting practices can continue to be innovative and successful in meeting the needs of rural and regional Australia.

WU, Dr Jiaping
School of Humanities and Communications, Central Queensland University, Australia
Email: j.wu@cqu.edu.au

Title: Regional Development in the Changing Distant Context: A Case Study of the Northern Territory, Australia

Abstract: The context for regional development has changed substantially. This paper uses the Northern Territory, Australia as a case study and presents an examination of regional dynamics associated with changing distant context with a focus on ICT application and global integration. It reveals the consequent spatial processes occurring where non-Indigenous people have increasingly concentrated onto the capital city of the region, Darwin. The majority Indigenous population has however experienced increasing disadvantages and has been kept away from economic participation and urban concentration.